What is claimed is:

1. Apparatus for reproducing digital video signals from a magnetic tape, wherein a frame of digital video signals had been recorded in 2 m tracks (m is an integer greater than 1) when said magnetic tape was transported at a first speed, comprising: a pair of rotary heads having respectively different azimuth angles for scanning traces across said magnetic tape,

[said heads being constructed either as a double azimuth head assembly or as a pair of heads angularly separated by 180°,]

said traces substantially coinciding with said tracks when said magnetic tape is transported at said first speed; and a tape [transport means]

transportor for transporting said magnetic tape at a second speed equal to $(m \times n \pm l)$ times said first speed, where n is an integer other than zero,

and l has a predetermined value depending upon the configuration of the heads

[l=0.5 when said pair of heads comprise said double azimuth head assembly and l=0.25 when said heads are angularly separated by 180°].

2. The apparatus of claim 1 wherein n is a positive number when said tape transportor [transport means] transports said magnetic tape in a forward direction and n is a negative number when said tape transportor [transport means] transports said magnetic tape in a reverse direction.

3. The apparatus of claim 1 wherein said digital video signals are NTSC video signals and m=5.

4. The apparatus of claim 1 wherein said digital video signals are PAL video signals and m=6.

5. The apparatus of claim 1 wherein n is an odd integer [when] and l=0.25.

6. The apparatus of claim 1 wherein the frame of digital video signals recorded in said 2 m tracks are orthogonally transformed video signals encoded in variable length code.

7. The apparatus of claim 6 wherein said variable length code is a two-dimension Huffman code.

8. The apparatus of claim 6 wherein the orthogonally transformed video signals of a frame are shuffled.

9. Apparatus for reproducing digital video signals from a magnetic tape, wherein a frame of digital video signals had been recorded in 2 m tracks (m is an integer greater than 1) when said magnetic tape was transported at a first speed, each frame having been divided into blocks of picture elements [and the blocks of a frame having been recorded in shuffled form with respect to each other], said apparatus exhibiting a data read-out

rate and comprising: a pair of rotary heads angularly separated from each other by 180° and admitting of respectively different azimuth angles; and tape transport means for transporting said magnetic tape at a second speed equal to $(m \times n \pm l)$ times said first speed, where n is an odd integer, $l = 0.25$ when said apparatus exhibits a data read-out rate determined to be at least 50% and $l = 0.125$ when said apparatus exhibits a data read-out rate determined to be less than 50%.

10. The apparatus of claim 9 wherein n is a positive number when said tape transport means transports said magnetic tape in a forward direction and n is a negative number when said tape transport means transports said magnetic tape in a reverse direction.

11. The apparatus of claim 9 wherein said digital video signals are NTSC signals and $m = 5$.

12. The apparatus of claim 9 wherein said digital video signals are PAL signals and $m = 6$.

13. The apparatus of claim 9 wherein the frame of digital video signals recorded in said 2 m tracks are orthogonally transformed video signals encoded in variable length code.

14. The apparatus of claim 13 wherein said variable length code is a two-dimension Huffman code.

$S u b (2)$

15. Apparatus for reproducing digital video signals from a magnetic tape, wherein a frame of digital video signals had been recorded in 2 m tracks (m is an integer greater than 1) when said magnetic tape was transported at a recording speed, each frame having been divided into blocks of picture elements

[and the blocks of a frame having been recorded in shuffled form with respect to each other], said apparatus exhibiting a data read-out rate and comprising: a pair of rotary magnetic heads [disposed in a double azimuth head assembly and admitting of] having respectively different azimuth angles; and a tape transportor [transport means]

. for transporting said magnetic tape at a fast playback speed equal to $(m \times n \pm l)$ times said recording speed, where n is an integer other than zero, and l is a value depending upon a data read-out rate

[l=0.5 when said apparatus exhibits a data read-out rate determined to be at least 50% and l=0.25 when said apparatus exhibits data read-out rate determined to be less than 50%].

16. The apparatus of claim 15 wherein n is a positive number when said tape transportor [transport means] transports said magnetic tape in a forward direction and n is a negative number when said tape transportor [transport means] . . transports said magnetic tape in a reverse direction.

17. The apparatus of claim 15 wherein said digital video signals are NTSC signals and m=5.

18. The apparatus of claim 15 wherein said digital video signals are PAL signals and m=6.

19. The apparatus of claim 15 wherein the frame of digital video signals recorded in said 2 m tracks are orthogonally transformed video signals encoded in variable length code.

20. The apparatus of claim 19 wherein said variable length code is a two-dimension Huffman code.

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